

REMARKS/ARGUMENTS

Applicants have amended Claim 1 to better define the location of the sulfate groups and their relationship to the polymer backbone as described in the present application to make the distinction over the cited art more clear. Claim 1 is rewritten with language within the original claim itself. Thus, no new issue is raised and no new search or consideration is necessary. Applicants therefore request entry of this amendment in order to avoid an appeal and to expedite prosecution to a quick allowance.

Applicants are appreciative of the Examiner's efforts to "find" their previous response in the USPTO several weeks after it was submitted, and to promptly act on it. The undersigned is also appreciative of the Examiner's telephone call in late October once the previous response was forwarded to her attention.

It is also noted that the Advisory Action, unlike the Final Rejection, indicates that Claims 8-10 are "objected to", and presumably they contain allowable subject matter if rewritten in independent form with all foregoing limitations.

This second Rule 116 response is presented to further explain the differences between the claimed invention and the cited art (noted below) and to respond to the Examiner's remarks on page 3 of her Advisory Action. It is again requested that the amendment be entered and that the rejection be withdrawn for reasons noted below.

Rejection Under 35 U.S.C. §102(e)

Claims 1-7 have been rejected as anticipated by U.S. Patent Application Publication 2005/008965 (Tao et al.). Presumably, the Examiner means to indicate that Claims 8-10 are allowable. This rejection is respectfully traversed.

The Office Action refers to the teaching in Tao et al. of a "sulfated phenolic resin" used in an imageable element.

Applicants do not disagree with the Examiner's understanding of a benzene derivative (or aryl group) being created by removal of a hydrogen atom from the benzene ring. However, they maintain their traversal of the rejection

because they believe that the Examiner has not correctly understood the teaching of Tao et al. In particular, it is believed that Applicants' location of sulfate groups has been misunderstood in relation to the location of sulfate groups taught in Tao et al.

Applicants' claimed imageable element requires the presence of a "sulfated polymer" in which the sulfate groups are attached to pendant aryl groups, alkyl groups, or both. Amended Claim 1 makes this location of the sulfate groups more clear. Applicants' invention does not call for sulfate groups directly attached to the benzene rings of the polymer backbone.

However, Tao et al. does require the presence of sulfate groups that are directly attached to the benzene rings that are part of the polymer backbone. This requirement is clearly described in [0034] of Tao et al. where the phrase "sulfate phenolic resin" used in the claims is defined. The sulfate groups are attached to the aromatic rings of the polymer backbone in place of at least some of the hydroxyl substituents. This definition in Tao et al. clearly does not include resins in which the sulfate group is attached to pendant aryl groups, or to alkyl groups as in the present invention. Thus, in the resins used in the present invention, there is always a chemical moiety between the sulfate group and the aromatic rings in the polymer backbone. This is not the case for the polymers in Tao et al.

Response to Advisory Action:

The Examiner has pointed to paragraphs [0041] and [0042] as supporting her anticipation rejection of Claims 1-7 over Tao et al.

The description in these two paragraphs of Tao et al. clearly support the discussion of its general teaching cited above (e.g. in paragraph [0034]. The sulfated phenolic resin pointed out in Tao et al. includes two types of repeating units represented by structures A and B. Both structures use conventional patent chemical terminology and definition by showing the repeating structures as having bonds extending beyond the parentheses. This is meant in conventional patent nomenclature to represent connections to other repeating units that form the polymer backbone. The groups within the individual structures, then, are either part of the polymer backbone, or pendant groups that are attached to the polymer backbone.

For example, structure A has a benzene ring (substituted with groups $-OR_1$ and $-R_2$) and a methylene group (substituted with $-R_3$ and $-R_4$). The benzene ring and methylene group form the polymer backbone while the $-OR_1$, $-R_2$, $-R_3$, and $-R_4$ are pendant to the polymer backbone.

The Examiner points to R_1 as “represented by oxygen and aryl group and a sulfate group is attached to the aryl group”. Applicants do not understand what this statement means. What they do understand is that R_1 can be any of a number of groups defined in paragraph [0042] including an aryl group. Substituents, sulfate or otherwise, for this aryl group are not described in paragraph [0042]. Nor are sulfate substituents described for the aryl group in paragraph [0045]. Rather paragraph [0042] makes it clear that the reason for having both structures A and B is to provide a ratio of the B units to the total polymer units as a way of defining the “degree of sulfation”. Thus, there is no intention or contemplation of sulfate groups in structure A.

Structure B represents different repeating units with sulfate groups and also shows the bonds extending through the parentheses as a conventional method of showing a repeating polymer unit. The polymer backbone therefore also comprises a benzene ring and a methylene group to which are attached sulfate, $-R_3$, and $-R_4$ groups.

Moreover, it is clear that sulfate groups are positioned in the structure B repeating units (called “sulfated phenolic units in paragraph [0042]). However, those sulfate groups (comprising the charged $-OSO_3$ moiety shown structure B) are clearly and unequivocally attached directly to the benzene (or “aryl”) group in the polymer backbone. The benzene ring is not pendant to the polymer backbone—it is part of it. A skilled worker in polymer chemistry would interpret paragraph [0042] in no other manner.

Thus, in view of the entire document, the statement in the Advisory Action that “the sulfate group is attached to the aryl group that is pendant to the polymer backbone” in Tao et al. is incorrect. Clearly, the sulfate group is pendant to the polymer backbone but it is not attached to a pendent aryl group as required in Applicants’ presently claimed invention.

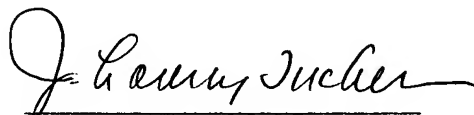
Thus, the sulfated phenolic resins taught in Tao et al. are structurally and chemically different than the “sulfated polymers” required in the presently claimed invention. Because Tao et al. does not describe each and every

limitation of Applicants' claimed invention as understood by a skilled polymer chemist, either expressly or under principles of inherency, it cannot anticipate the presently claimed invention.

For these reasons, it is requested that the rejection of Claims 1-7 over Tao et al. be withdrawn and this application passed to allowance without the need for an appeal.

In view of the foregoing amendments and remarks, reconsideration of this patent application is respectfully requested. A prompt and favorable action by the examiner is earnestly solicited.

Respectfully submitted,

A handwritten signature in cursive script, reading "J. Lanny Tucker", written in black ink. The signature is fluid and stylized, with a long horizontal flourish extending to the right.

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If the Examiner is unable to reach the Applicant(s) Attorney at the telephone number provided, the Examiner is requested to communicate with Eastman Kodak Company Patent Operations at (585) 477-4656.